partments, which in turn depend on physician-initiated reporting of a limited number specific, recognized infectious diseases. Reporting is generally incomplete.

Results from a recent survey by the Council of State and Territorial Epidemiologists (CSTE) illustrate the inadequacy of existing infectious disease surveillance by documenting the limited number of professional positions dedicated to infectious disease surveillance in most states. For example, in over 25% of the 50 states surveyed, no professional position is dedicated to surveillance of foodborne and waterborne diseases. Funding for communicable disease surveillance is largely confined to diseases for which public health crises have already developed; over 95% of funds allocated to states for infectious disease surveillance are targeted to four disease categories (TB, HIV/AIDS, sexually transmitted diseases [STDs] , and selected vaccine preventable diseases).2 No federal resources are provided to state and local health departments to support the national notifiable disease system. In addition, the ability of state public health laboratories to support surveillance and control of infectious diseases has diminished.

Timely recognition of emerging infections requires early warning systems to detect these diseases before they develop into public health crises. Prompt detection of these new threats depends on careful monitoring by modern surveillance systems and a thorough understanding of trends in incidence and distribution of known infectious agents.

The ability to detect what is new or reemerging depends on the capacity to identify and track the routine as well as the unusual.

To develop and implement rapid, effective prevention and control measures for emerging infections, good surveillance systems are needed to detect infectious diseases before they become widespread. The ability to detect what is new or reemerging, however, depends on the capacity to identify and track the routine as well as the unusual. Like radar or "early warning" systems that detect threats to national security, surveillance and appropriate laboratory support are critical to an effective defense against these diseases. They are the most important tools for determining which infectious diseases are emerging, causing serious public health problems, or receding.

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Effective surveillance also provides a basis for evaluating the outcome of both public health and personal medical care programs. Surveillance information is useful in ensuring the use of the most efficacious and cost-effective approaches to preventive, as well-curative, health care. Whatever shape health reform takes in this country, surveillance will be key to the meaningful evaluation of new programs.

In addition to comprehensive and innovative surveillance systems, effective preparation for emerging infectious diseases requires sound foundations in professional expertise, laboratory support, and research capability. These foundations support the infrastructure needed to address the ongoing, but often changing, threats from emerging infections. Despite the continued emergence of such threats, support for applied research and control efforts has declined over the past decade for most infectious diseases.

As highlighted in three recent reports by committees of medical and public health experts convened by the National Academy of Science's Institute of Medicine (IOM), the ability of the U.S. public health system and our health professionals to deal with emerging infectious disease problems is in jeopardy.[1,3,4] The earliest of these reports, "The U.S. Capacity to Address Tropical Infectious Disease Problems,"[3] published in 1987, documented our poor state of readiness to recognize, treat, or control infectious disease threats emanating from the tropics—regions which have yielded microbial threats such as AIDS, Lassa fever and Ebola viruses, chloroquine-resistant malaria, and penicillin-resistant gonorrhea. The second report, "The Future of Public Health," published in 1988, concluded that the U.S. public health system is in disarray. It emphasized that the U.S. approach to public health has too often been crisis driven, an approach that is costly because it blocks our ability to institute cost-saving preventive strategies.[4]

The third IOM report, "Emerging Infections, Microbial Threats to Health in the United States," published in 1992, emphasized the ongoing threat to domestic and global health from emerging infectious diseases.[1] The report provided specific recommendations for CDC, the National Institutes of Health (NIH), the Food and Drug Administration (FDA), the Department of Defense (DOD), and other state and federal agencies for addressing microbial threats to health in the United States and elsewhere. This report emphasized a critical leadership role for CDC in a national and global effort to detect and control emerging infectious disease threats.

The CDC Plan

To effectively detect and prevent emerging infections, significant changes are needed in public health systems, program design, and infrastructure. Toward this end and the achievement of the objectives of Healthy *People 2000,* CDC has developed a strategy to address these microbial threats. Because meeting the broad challenge of emerging infections requires interaction, cooperation, and coordination among a wide range of public and private organizations, the development of this strategy has taken place in partnership with other federal agencies. state and local health de-